

10/11/01  
1430 U.S. PTO

10/15/01 A

PTO/SB/05 (03-01)

Approved for use through 10/31/2002 OMB 0651-0032

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

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# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. D-2737/WOD

First Inventor VanderZee, J. C. et al.  
Title Determination and Applications of  
Three-Phase Power Factor

Express Mail Label No. ET320402885US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1.  Fee Transmittal Form (e.g., PTO/SB/17)  
*(Submit an original and a duplicate for fee processing)*
2.  Applicant claims small entity status.  
See 37 CFR 1.27.
3.  Specification [Total Pages 31]  
*(preferred arrangement set forth below)*
  - Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (*if filed*)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4.  Drawing(s) (35 U.S.C. 113) [ Total Sheets 4 ]
5. Oath or Declaration [ Total Pages 35 ]
  - a.  Newly executed (original or copy)
  - b.  Copy from a prior application (37 CFR 1.63 (d))  
*(for continuation/divisional with Box 18 completed)*
    - i.  **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b)
6.  Application Data Sheet. See 37 CFR 1.76

ADDRESS TO: Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7.  CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission  
*(if applicable, all necessary)*
  - a.  Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i.  CD-ROM or CD-R (2 copies); or
    - ii.  paper
  - c.  Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9.  Assignment Papers (cover sheet & document(s))
10.  37 CFR 3.73(b) Statement  Power of  
*(when there is an assignee)*  Attorney
11.  English Translation Document (*if applicable*)
12.  Information Disclosure Statement (IDS)/PTO-1449  Copies of IDS  
Citations
13.  Preliminary Amendment
14.  Return Receipt Postcard (MPEP 503)  
*(Should be specifically itemized)*
15.  Certified Copy of Priority Document(s)  
*(if foreign priority is claimed)*
16.  Nonpublication Request under 35 U.S.C. 122  
(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17.  Other: .....

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

Continuation  Divisional  Continuation-in-part (CIP) of prior application No. /

Prior application information

Examiner \_\_\_\_\_

Group Art Unit \_\_\_\_\_

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS

<input type="checkbox"/> Customer Number or Bar Code Label	(Insert Customer No. or Attach bar code label here)			or	<input checked="" type="checkbox"/> Correspondence address below
Name	William O'Driscoll - 12-1				
Address	The Trane Company				
	3600 Pammel Creek Road				
City	La Crosse	State	WI	Zip Code	54601
Country	United States	Telephone	608-787-2538	Fax	787-3755
Name (Print/Type)	William O'Driscoll	Registration No. (Attorney/Agent)	33,294		
Signature	William O'Driscoll	Date	10/15/01		

Burden Hour Statement This form is estimated to take 0 2 hours to complete Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

10/11/01  
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# FEE TRANSMITTAL

## for FY 2002

Patent fees are subject to annual revision

TOTAL AMOUNT OF PAYMENT (\$ 1260.00)

## Complete if Known

Application Number	
Filing Date	
First Named Inventor	VanderZee, J. C. et al.
Examiner Name	
Group Art Unit	
Attorney Docket No.	D-2737/WOD

## METHOD OF PAYMENT

1.  The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number **20-1434**  
 Deposit Account Name **The Trane Company**

Charge Any Additional Fee Required  
Under 37 CFR 1.16 and 1.17

Applicant claims small entity status  
See 37 CFR 1.27

2.  Payment Enclosed:

Check  Credit card  Money Order  Other

## FEE CALCULATION (continued)

## 3. ADDITIONAL FEES

Fee Code	Large Entity Fee (\$)	Small Entity Fee (\$)	Fee Description	Fee Paid
105	130	205	65 Surcharge - late filing fee or oath	
127	50	227	25 Surcharge - late provisional filing fee or cover sheet	
139	130	139	130 Non-English specification	
147	2,520	147	2,520 For filing a request for ex parte reexamination	
112	920*	112	920* Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840* Requesting publication of SIR after Examiner action	
115	110	215	55 Extension for reply within first month	
116	400	216	200 Extension for reply within second month	
117	920	217	460 Extension for reply within third month	
118	1,440	218	720 Extension for reply within fourth month	
128	1,960	228	980 Extension for reply within fifth month	
119	320	219	160 Notice of Appeal	
120	320	220	160 Filing a brief in support of an appeal	
121	280	221	140 Request for oral hearing	
138	1,510	138	1,510 Petition to institute a public use proceeding	
140	110	240	55 Petition to revive - unavoidable	
141	1,280	241	640 Petition to revive - unintentional	
142	1,280	242	640 Utility issue fee (or reissue)	
143	460	243	230 Design issue fee	
144	620	244	310 Plant issue fee	
122	130	122	130 Petitions to the Commissioner	
123	50	123	50 Processing fee under 37 CFR 1.17(q)	
126	180	126	180 Submission of Information Disclosure Stmt	
581	40	581	40 Recording each patent assignment per property (times number of properties)	
146	740	246	370 Filing a submission after final rejection (37 CFR § 1.129(a))	
149	740	249	370 For each additional invention to be examined (37 CFR § 1.129(b))	
179	740	279	370 Request for Continued Examination (RCE)	
169	900	169	900 Request for expedited examination of a design application	
Other fee (specify) _____				

\*or number previously paid, if greater. For Reissues, see above

SUBTOTAL (3) (\$ 40)

SUBMITTED BY		Complete if applicable			
Name (Print/Type)	William O'Driscoll	Registration No. (Attorney/Agent)	33,294	Telephone	608-787-2538
Signature	William O'Driscoll	Date	10/14/01		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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**MULTIPLE DEPENDENT CLAIM  
FEE CALCULATION SHEET**  
(For use with Form PTO/SB/06)

Application Number	Filing Date
Applicant(s) <b>VanderZee, J. C. et al.</b>	

\* May be used for additional claims or amendments

CLAIMS	AS FILED		AFTER FIRST AMENDMENT		AFTER SECOND AMENDMENT		* Indep	* Depend	* Indep	* Depend	* Indep	* Depend
	Indep	Depend	Indep	Depend	Indep	Depend						
1	Ind.						51					
2		1					52					
3		1					53					
4		3					54					
5		4					55					
6		3					56					
7		6					57					
8		1					58					
9		8					59					
10		9					60					
11		8					61					
12		11					62					
13		1					63					
14		13					64					
15		13					65					
16		1					66					
17		16					67					
18		17					68					
19		18					69					
20	Ind.						70					
21		20					71					
22		20					72					
23		22					73					
24		23					74					
25		22					75					
26		25					76					
27		20					77					
28		27					78					
29		28					79					
30		27					80					
31		30					81					
32		20					82					
33		32					83					
34		32					84					
35		20					85					
36		35					86					
37		36					87					
38		37					88					
39	Ind.						89					
40		39					90					
41	Ind.						91					
42		41					92					
43							93					
44							94					
45							95					
46							96					
47							97					
48							98					
49							99					
50							100					
Total Indep	4						Total Indep					
Total Depend	38	←	←	←			Total Depend	←	←	←		
Total Claims	42						Total Claims					

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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IN THE PATENT APPLICATION OF:

Joel C. Vanderzee, Michael W. Murry,  
Richard L. Vogel and Matthew A. Shepeck

U.S. SERIAL NO: UNKNOWN

GROUP: UNKNOWN

FILED: CONCURRENTLY

EXAMINER: UNKNOWN

FOR: DETERMINATION AND APPLICATIONS OF  
THREE-PHASE POWER FACTOR

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La Crosse, Wisconsin  
October 11, 2001

CERTIFICATE OF MAILING BY EXPRESS MAIL

UNDER 37 C.F.R. 1.10

Assistant Commissioner for Patents

Washington, D.C. 20231

Dear Sir:

I hereby certify that the attached "Patent Application" is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on October 11, 2001, and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231. The number of the Express Mailing label is ET320402885US.

Respectfully Submitted,



William O'Driscoll  
Registration No. 33,294

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